

REMARKS/ARGUMENTS

In the Office Action dated July 30, 2009, the Examiner objected to claims 1-3, 16, 18, 23, 25, 27, 32 and 33 because of informalities; rejected claims 1-3, 16, 18, 23, 25, 27, 32 and 33 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement; rejected claims 1-3, 16, 18, 23, 25, 27, 32 and 33 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention; rejected claims 1-3, 18, 23, 32 and 33, under 35 U.S.C. 102(b) as being anticipated by *Lang et al.* (GB 896,896); rejected claims 1-3, 18, 23, 32 and 33, under 35 U.S.C. 102(b) as being anticipated by *Howard* (U.S. 863,180); rejected claim 16 under 35 U.S.C. 103(a) as being unpatentable over *Lang et al.* (GB 896,896); rejected claim 16 under 35 U.S.C. 103(a) as being unpatentable over *Howard* (U.S. 863,180); rejected claims 25 and 27 under 35 U.S.C. 103(a) as being unpatentable over *Lang et al.* (GB 896,896) in view of *McGregor et al.* (U.S. 5,983,743); and rejected claims 25 and 27 under 35 U.S.C. 103(a) as being unpatentable over *Howard* in view of *McGregor et al.*

Election/Restriction

Pursuant to the restriction requirement dated April 24, 2009, Applicant elected Group I directed to claims 2-5, 16, 23, 27, 29-30, 32 and 33 and further elected species I shown in Figures 1-3. The Examiner in the present office action dated July 30, 2009, has further restricted out at least claims 4, 5, 29 and 30 as not reading on Figures 1-3 and also states that the Examiner does not see support for claim 16 in Figures 1-3. However, the Examiner examined claims 1-3, 16, 18, 23, 25, 27, 32 and 33. With respect to claim 16, Applicant believes that claim 16 is supported by Figures 1-3. See paragraph [0063] describing multiple drive shafts 22 arranged with motors 4, 5. However, Applicant draws the Examiner's attention to claim 23 which is directed to the engaging elements 27 in slots 28, 29 shown in the embodiment of Figure 4.

Claim Objections

The claims have been amended to overcome the objections. With respect to claim 3, the word "immovable" has been deleted and the word "immovable" inserted. With respect to claim 16, claim 16 has been amended to depend from claim 3 so as to provide antecedent basis for "the device housing". With respect to claim 23, the word "essentially" has been deleted from line 3. With respect to claim 27, the word "essentially" has been deleted from line 2.

Claim Rejections Under § 112

The claims have been amended to overcome the § 112 rejections. With respect to claim 1, the words "or similar device, in particular" in line 2 have been deleted. With respect to claim 2, line 2 has been amended to indicate that either a recirculating roller spindle drive or a ball spindle drive may be used. With respect to claim 16, claim 16 has been amended to include a second drive shaft in a second motor to overcome the Examiner's objections regarding indefiniteness.

Claim Rejections Under § 102

Claims 1-3, 18, 23, 32, and 33 are rejected under § 102(b) as being anticipated by *Lang et al.* *Lang et al* discloses an actuator for elements such as valves. The *Lang et al* actuator includes a threaded valve spindle 2 arranged for axial movement. The spindle 2 seats within a correspondingly threaded bush 3 positioned within a hollow sleeve 4. Upon energizing an electric motor to rotate a motor extension shaft 67, a clutch spur wheel 66 drives a clutch pinion wheel 65. A dog clutch 85 is then activated. The drive from the electric motor is thus transmitted through the motor pinion wheel 90, the motor spur wheel 89, the upper dog clutch 85 and the hollow shaft 36 to the dished pinion wheel 35. The dished pinion wheel 35 in turn drives the gear wheel 24, the pinion wheel 18 and the spur wheel 15 to rotate sleeve 4 and axially move valve spindle 2.

Claim 1 is distinguishable from *Lang et al.* *Lang et al* does not teach a circulation body having fluid flow therethrough nor a spindle drive, gear unit and motor all disposed within the body. Further, *Lang et al* teaches a clutch between the reduction gear and the spur gear. Claims 2-3, 18, 23, 32 and 33 are dependent upon claim 1 and are allowable for the reasons given with respect to claim 1. Further with respect to claim 23, *Lang et al* does not teach a second slot or a second slot extending at an acute angle to the first slot. Further with respect to claim 33, *Lang et al* does not teach a threaded spindle releasably connected to a sliding rod.

Claims 1-3, 18, 23, 32 and 33 are rejected under § 102(b) as being anticipated by *Howard*. *Howard* discloses a motor driven valve. A spindle 25 threaded at its upper end and having a gate 24 disposed on its other end for opening and closing the valve. The threaded end of spindle 25 is engaged by a threaded nut 34 which fits loosely in the top of a yoke head 35 allowing it to reciprocate within fixed limits. A clutch projection 39 extends into the path of a similar projection 40 rising from a large gear 41. Another gear 46 meshes with gear 41 and is allowed to move up and down with nut 34 while remaining in mesh 46. A gear 45 is rotatably disposed below gear 46 and meshes with a small gear 47 on a shaft 48 of a motor 49. The clutch projections 39 and 40 provide lost motion.

Claim 1 is distinguishable from *Howard*. *Howard* does not teach a circulation body having fluid flow therethrough with a spindle drive, gear unit and motor all disposed within the body. Further, *Howard* teaches a clutch between the reduction gear and the spur gear. Claims 2-3, 18, 23, 32 and 33 are dependent upon claim 1 and are allowable for the reasons given with respect to claim 1. Further with respect to claim 23, *Howard* does not teach a second slot or a second slot extending at an acute angle to the first slot. Further with respect to claim 33, *Howard* does not teach a threaded spindle releasably connected to a sliding rod.

Claim 16 is dependent upon claims 1-3 and is allowable for the reasons these claims are distinguishable over *Lang et al* and *Howard*. As admitted by the examiner, neither *Lang et al* nor *Howard* teach multiple motors on multiple drives. The examiner provides no support for the position that this distinction is routine in the art. In particular, the examiner has shown no teaching of two motors with different drive shafts in parallel with the spindle of claim 16.

Claims 25 and 27 are rejected under § 103(a) as being unpatentable over *Lang et al.* in view of *McGregor et al.* and as being unpatentable over *Howard* in view of *McGregor et al.* Both *Lang et al.* and *Howard* fail to disclose a position sensor. *McGregor* at column 7, lines 3-7 states that the motor 10 is turned off by a position sensor. It appears that there is no further disclosure of a position sensor by *McGregor*. Claims 25 and 27 have been rewritten in independent form including all elements of any base claim including claim 1. Thus claims 25 and 27 are allowable as depending upon claim 1. Further with respect to claim 25, *McGregor* does not teach a position sensor assigned to an axially movable part of the spindle drive nor does *McGregor* teach a position sensor to determine the position of the actuating element. With respect to claim 27, *McGregor* does not teach a position sensor having a flat code carrier. Thus, *McGregor* can not also teach a flat code carrier that is offset radially or parallel to the threaded spindle.

New claims 38-49 have been added. No new matter is introduced by these amendments and each is supported by the application as originally filed.

CONCLUSIONS

During the course of these remarks, Applicants have at times referred to particular limitations of the claims, which are not shown in the applied prior art. This short-hand approach to discussing the claims should not be construed to mean that the other claimed limitations are not part of the claimed invention. They are as required by law. Consequently, when interpreting the claims, each of the claims should be construed as a whole, and patentability determined in light of this required claim

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construction. Applicants reserve the right to submit the original claims in a continuing application and prosecute those original claims fully without regard to any amendments made to those claims in the present application. Applicants do not give up any scope of the original claims due to the claims amendments in the present application.

If the Examiner has any questions or comments regarding this communication, he is invited to contact the undersigned to expedite the resolution of this application.

The Commissioner is authorized to charge any additional fees incurred in this application to Deposit Account No. 03-2769 of Conley Rose, P.C., Houston, Texas.

Respectfully submitted,

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